EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	120	544/74.ccls.	USPAT	OR	OFF	2007/08/15 15:28

PALM INTRANET

Day : Wednesday
Date: 8/15/2007
Time: 15:22:14

Inventor Information for 10/532223

Inventor Name	City	State/Country
CLADINGBOEL, DAVID	LEICESTERSHIRE	UNITED KINGDOM

Appln Info | Contents | Petition Info | Atty/Agent Info | Continuity/Reexam | Foreign D

Search Another: Application # [ ] Search **or Patent#** [ ] Search

PCT / [ ] / [ ] Search **or PG PUBS #** [ ] Search

Attorney Docket # [ ] Search

Bar Code # [ ] Search

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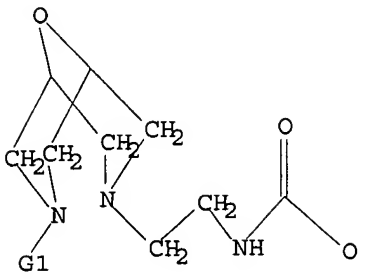
Back to PALM | ASSIGNMENT | OASIS | Home page



G1 H,CH2

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED -       15 TO ITERATE

100.0% PROCESSED       15 ITERATIONS                                 6 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:           68 TO      532
PROJECTED ANSWERS:               6 TO      266

L2            6 SEA SSS SAM L1

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FULL SEARCH INITIATED 13:57:01 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      298 TO ITERATE

100.0% PROCESSED      298 ITERATIONS                                68 ANSWERS
SEARCH TIME: 00.00.01

L3            68 SEA SSS FUL L1

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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   172.10     172.31

FILE 'CAPLUS' ENTERED AT 13:57:05 ON 15 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 15 Aug 2007 VOL 147 ISS 8
FILE LAST UPDATED: 14 Aug 2007 (20070814/ED)

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=> s l3
L4 18 L3

=> d ibib abs hitstr tot

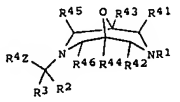
L4 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:672662 CAPLUS
DOCUMENT NUMBER: 147:95709
TITLE: Preparation of oxabispidines for the treatment of cardiac arrhythmias
INVENTOR(S): Bjoere, Annika; Cladingboel, David; Kajanus, Johan; Olsson, Christina; Ponten, Fritiof; Strandlund, Gert
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 188pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007069986	A1	20070621	WO 2006-SE1426	20061214

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: SE 2005-2774 A 20051215

OTHER SOURCE(S): MARPAT 147:95709
GI



I

AB Title compds. [I; R1 = (substituted) alkyl, COER7, CONR8aR5d, SO2R9a; R2, R3 = H, F, alkyl; R4 = alkyl, 6-membered (hetero)aryl, etc.; R5d = H, (substituted) alkyl, aryl, (substituted) heterocyclyl, etc.; R8a = H, (substituted) alkyl, alkoxy, etc.; R9a = (substituted) alkyl; R41-R46 = H, alkyl; Z = NR14aCOA, CONR14bB; R14a, R14b = H, alkyl; A = bond, (substituted) alkylene; B = (substituted) alkylene; E = O, S; with specific exclusions], were prepared Thus, N-(4-cyanobenzyl)-2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)acetamide dihydrochloride (preparation given),

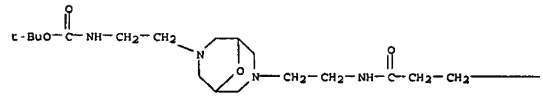
L4 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

PAGE 1-B

—CN

RN 942281-95-0 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A



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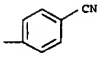

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
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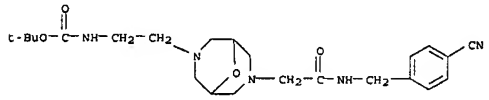
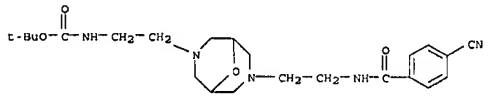
L4 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
PhCH2CH2Br, and K2CO3 were heated together in MeCN at 60° for 66 h to give 76.2% N-(4-cyanobenzyl)-2-[7-(2-phenylethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]acetamide. The latter showed a D10 value of 7.1 for class III electrophysiol. potency in guinea pigs.
IT 942280-90-2P 942281-68-7P 942281-92-7P
942281-95-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(claimed compound; preparation of oxabispidines for the treatment of cardiac arrhythmias)
RN 942280-90-2 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

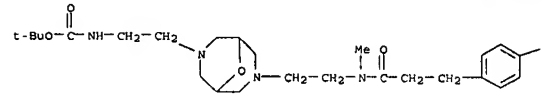


RN 942281-68-7 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



RN 942281-92-7 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A



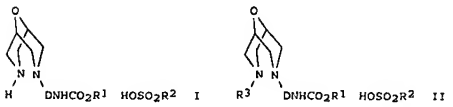
L4 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1357092 CAPLUS
DOCUMENT NUMBER: 146:100735
TITLE: Process for the preparation of oxabispidine sulfonate salts via hydrogenolysis of N-protected oxabispidines.
INVENTOR(S): Cladingboel, David; Ensor, Gareth
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 90pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006137770	A1	20061228	WO 2006-SE690	20060612

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: SE 2005-1427 A 20050620
SE 2005-2771 A 20051215

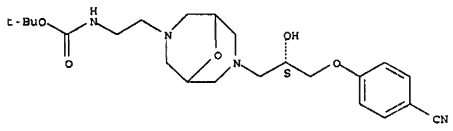
OTHER SOURCE(S): CASREACT 146:100735; MARPAT 146:100735
GI



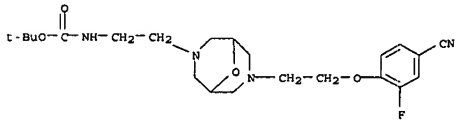
AB Title compds. [I; R1 = (substituted) alkyl; D = alkylene; R2 = alkyl, perfluoroalkyl, (substituted) Ph], were prepared by hydrogenolysis of (II; R1, R2 as above; R3 = protecting group labile to hydrogenation) in the presence of a solvent comprising H2O, a C3-5 secondary alc., and ≤15% of another organic solvent. Thus, [2-(7-benzyl-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamic acid tert-Bu ester 2,4,6-trimethylbenzenesulfonic acid salt was hydrogenolyzed in isopropanol/H2O over Pd/C at 2.5 bar H2 and 55° for 1 h. The solution was filtered and the filtrate was combined with aqueous Na2CO3 and then

L4 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
treated with 4-[(2S)-oxiranylmethoxy]benzonitrile in isopropanol/PhMe followed by heating at 73° for 4 h and stirring at room temp. overnight to give 78% tert-Bu 2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate.
IT 335619-18-6P 872045-91-5P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of oxabispidine sulfonate salts via hydrogenolysis of N-protected oxabispidines)
RN 335619-18-6 CAPLUS
CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 872045-91-5 CAPLUS
CN Carbamic acid, N-[2-[7-[2-(4-cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

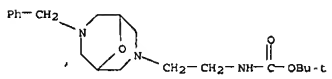


IT 473584-06-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of oxabispidine sulfonate salts via hydrogenolysis of N-protected oxabispidines)
RN 473584-06-4 CAPLUS
CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (CA INDEX NAME)

CM 1

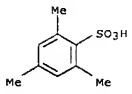
L4 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CRN 473584-04-2
CMF C20 H31 N3 O3



CM 2

CRN 3453-83-6
CMF C9 H12 O3 S



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L4 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1356558 CAPLUS
DOCUMENT NUMBER: 146:100733
TITLE: Process for the preparation of sulfonic acid salts of oxabispidines via salification in an aqueous medium.
INVENTOR(S): Cheema, Lal; Cladingboel, David
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 63pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006137771	A1	20061228	WO 2006-SE691	20060612
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: SE 2005-1426 A 20050620
SE 2005-2773 A 20051215

OTHER SOURCE(S): CASREACT 146:100733; MARPAT 146:100733
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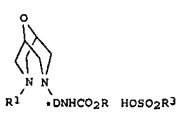

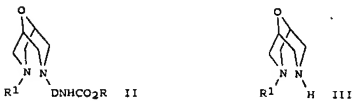

AB Title compds. [I; R1 = H, protecting group, R6BCR4R5A; R4 = H, halo, alkyl, OR7, ENR8R9; R4R5 = O; R5 = H, alkyl; R6 = (substituted) Ph,

L4 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
pyridyl; R7 = H, alkyl, aryl(alkyl), heteroaryl(alkyl), etc.; R8 = H, alkyl, aryl(alkyl), heteroaryl(alkyl), etc.; R9 = H, alkyl, aryl(alkyl), etc.; A = bond, (aminosulfonyl-interrupted) alkylene, alkyleneamino, alkylenesulfonylamino, alkyleneaminosulfonyl; alkyleneoxy; B = Z[[C(O)]aCH(R13a)]b, Z[C(O)]cNR13b, etc.; Z = bond, (aminosulfonyl-interrupted) alkylene; a, b, c = 0, 1; R13a = H; R13b = H, alkyl; R13aR6, R13bR6 = alkylene; R2 = (substituted) alkyl; R3 = alkyl, perfluoroalkyl, (substituted) Ph], were prepd. by treatment of an aq. dispersion of II and III; (variables as above) with a source of R3SO3- (followed if necessary by adjustment of the pH to 3-8) and product isolation. Thus, 3-benzyl-9-oxa-3,7-diazabicyclo[3.3.1]nonane dihydrochloride, 2-(tert-butoxycarbonylamino)ethyl 2,4,6-trimethylbenzenesulfonate, and aq. NaOH were stirred 12 h in PhMe at 65°, stirred at room temp. for 8 h, left to stand for 24 h, heated to 65°, and the layers were sepd. The org. layer was stirred with aq. citric acid at 60° for 5 min. and the aq. layer was sepd. and combined with the H2O and isopropanol-dild. first aq. phase at >70° followed by stirring for 1 h at 75°, cooling to 41° over 4 h and stirring for 65 h to give 90% [2-(7-benzyl-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamic acid tert-Bu ester 2,4,6-trimethylbenzenesulfonic acid salt monohydrate.
IT 473584-06-4P 917898-18-1P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of sulfonic acid salts of oxabispidines via salification in an aqueous medium)
RN 473584-06-4 CAPLUS
CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (CA INDEX NAME)

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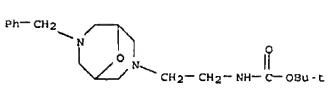
CRN 473584-04-2
CMF C20 H31 N3 O3



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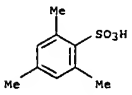
CRN 3453-83-6
CMF C9 H12 O3 S

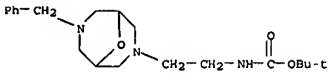
L4 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 917898-18-1 CAPLUS
CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate, hydrate (1:1:1) (CA INDEX NAME)

CM 1

CRN 473584-04-2
CMF C20 H31 N3 O3



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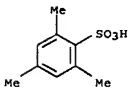
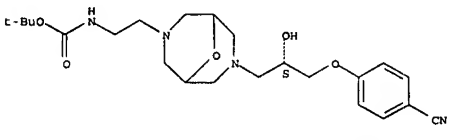


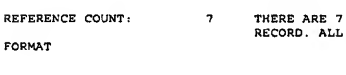
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L4 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
with provisos, having a surface area of <0.7 m2/g], was prepd. Thus, tert-Bu 2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxo-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate (II) (prepn. given) was recryatd. from diisopropyl ether/isopropanol (10:2 vol./vol.) to give 91% cryst. II having a mean surface area of 0.1659 m2/g.
IT 335619-18-6P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of crystalline N,N'-disubstituted oxabispidines and their use as
cardiovascular agents)
RN 335619-18-6 CAPLUS
CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



IT 473584-04-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of crystalline N,N'-disubstituted oxabispidines and their use as
cardiovascular agents)
RN 473584-04-2 CAPLUS
CN Carbamic acid, N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

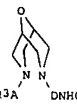
L4 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1354313 CAPLUS
DOCUMENT NUMBER: 146:100732
TITLE: Preparation of crystalline N,N'-disubstituted oxabispidines and their use as cardiovascular agents.
INVENTOR(S): Juppo, Anne; Steele, Gerald
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 60pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006137772	A1	20061228	WO 2006-SE692	20060612

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: SE 2005-1428 A 20050620

OTHER SOURCE(S): MARPAT 146:100732
GI



AB Crystalline material consisting essentially of title compds. [I; D = alkylene;
R1 = (substituted) alkyl; R2 = H, halo, alkyl, OR5, ENR6R6; R3 = H, alkyl;
R2R3 = O; R4 = (substituted) Ph, pyridyl; R5 = H, alkyl, aryl(alkyl), heteroaryl(alkyl), etc.; R6 = H, alkyl, aryl(alkyl), heteroaryl(alkyl), C(:NH)NH2, etc.; R7 = H, alkyl, aryl(alkyl), etc.; A = bond, J, JNR10a, JO, JSO2NR10b, etc.; B = Z[[C(O)]aCH(R11a)]b, Z[C(O)]cNR11b, ZO, etc.; J = (substituted) (interrupted) alkylene; a, b, c = 0, 1; R10a, R10b = H, alkyl; R11a = H; R11b = H, alkyl; R4R11a, R4R11b = (interrupted) alkylene;

L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1338378 CAPLUS
DOCUMENT NUMBER: 146:81900
TITLE: New oxabispidine compounds for the treatment of cardiac arrhythmias
INVENTOR(S): Bjoere, Annika; Cladingboel, David; Ensor, Gareth; Herring, Adam; Kajanus, Johan; Lundqvist, Robert; Olsson, Christina; Sigfridsson, Carl-Gustav; Strandlund, Gert
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 164pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006135316	A1	20061221	WO 2006-SE688	20060612

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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

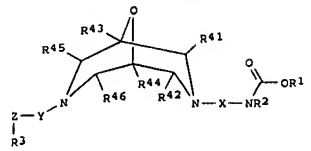
WO 2005123748	A1	20051229	WO 2005-SE891	20050613

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: WO 2005-SE891 A 20050613
SE 2005-2775 A 20051215
SE 2004-1539 A 20040615

OTHER SOURCE(S): MARPAT 146:81900
GI

L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



I

AB There is provided compds. of formula I, wherein R1 = (un)substituted C1-6 alkyl; R2= H or (un)substituted C1-4 alkyl; X = (un)substituted C2-4 n-alkylene ; Y = (un)substituted C1-6 n-alkylene; Z = a bond, O, C(O), etc.; R3 = (un)substituted Ph or heterocycle; R41 to R46 = H or C1-3 alkyl, which compds. are useful in the prophylaxis and in the treatment of arrhythmias, in particular atrial and ventricular arrhythmias. A process for preparing I is claimed. For example, II was prepared by reacting 3,5-Difluoro-4-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethoxy]benzonitrile hydrochloride with tert-Bu (3-bromopropyl)carbamate. I were tested in a Rb+-efflux assay for detection of HERG channel blockers and were found to exhibit pIC50 values >4.5.

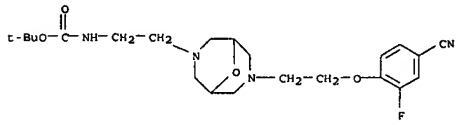
IT 872045-91-5P, tert-Butyl [2-[7-[2-(4-cyano-3-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 872046-15-6P , tert-Butyl [2-[7-(4-cyanobenzyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917226-84-7P 917226-88-1P 917226-89-2P, tert-Butyl [2-[7-[2-(4-cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate maleate 917226-97-2P, tert-Butyl [2-[7-[2-(4-cyano-3,6-difluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917226-98-3P, tert-Butyl [2-[7-[3-(4-cyano-2,6-difluorophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917226-99-4P, tert-Butyl [2-[7-[3-(4-cyano-2-fluorophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-00-0P, tert-Butyl [2-[7-[(2S)-3-(4-cyano-2,6-difluorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-01-1P, tert-Butyl [2-[7-[(2S)-3-(4-cyano-2-fluorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-02-2P, tert-Butyl [2-[7-[2-[(4-cyanobenzyl)oxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-03-3P, tert-Butyl [2-[7-[2-(4-cyanophenyl)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-04-4P, tert-Butyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-methoxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-06-6P, tert-Butyl [2-[7-[3-[(4-cyanophenyl)sulfonyl]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-07-7P, tert-Butyl [2-[7-[2-[2-(4-cyanophenyl)ethoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-09-9P, tert-Butyl [2-[7-[3-(4-fluorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-10-2P, tert-Butyl [2-[7-[3-(4-chlorophenoxy)-2-hydroxypropyl] 9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-11-3P, tert-Butyl [2-[7-[2-[2-(4-cyanophenoxy)ethoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-12-4P, tert-Butyl [2-[7-[2-(4-bromo-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-13-5P, tert-Butyl [2-[7-[3-(2,4-dicyanophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; new oxabispidine compds. for treatment of cardiac arrhythmias)

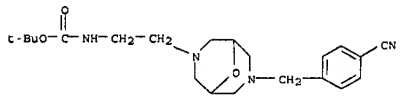
RN 872045-91-5 CAPLUS

CN Carbamic acid, N-[2-[7-[2-(4 cyano-2-fluorophenoxy)ethyl]-9 oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 872046-15-6 CAPLUS

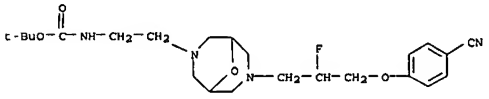
CN Carbamic acid, N-[2-[7-[(4-cyanophenyl)methyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl] , 1,1-dimethylethyl ester (CA INDEX NAME)



RN 917226-84-7 CAPLUS

CN Carbamic acid, N-[2-[7-[3-(4-cyanophenoxy)-2-fluoropropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

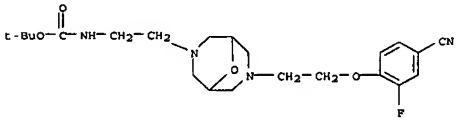


RN 917226-88-1 CAPLUS

CN Carbamic acid, N-[2-[7-[2-(4-cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

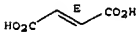
CRN 872045-91-5
CMF C22 H31 F N4 O4



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



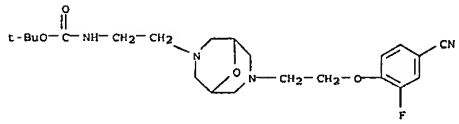
RN 917226-89-2 CAPLUS

CN Carbamic acid, N-[2-[7-[2-(4-cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 872045-91-5
CMF C22 H31 F N4 O4

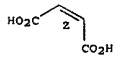
L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

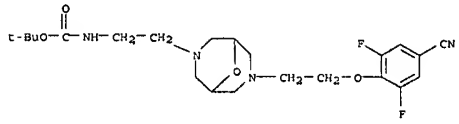
CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.



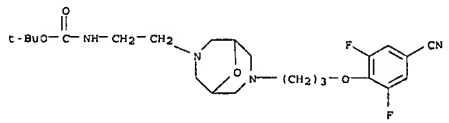
RN 917226-97-2 CAPLUS

CN Carbamic acid, N-[2-[7-[2-(4-cyano-2,6-difluorophenoxy)ethyl] 9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



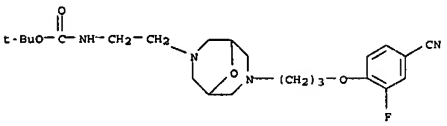
RN 917226-98-3 CAPLUS

CN Carbamic acid, N-[2-[7-[3-(4-cyano-2,6-difluorophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



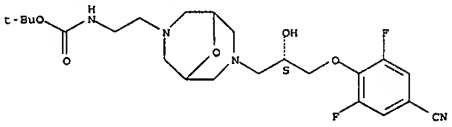
L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 917226-99-4 CAPLUS
CN Carbamic acid, N-[2-[7-[3-(4-cyano-2-fluorophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



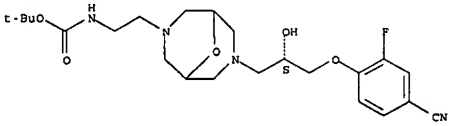
RN 917227-00-0 CAPLUS
CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyano-2,6-difluorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

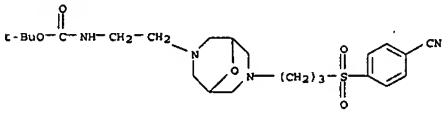


RN 917227-01-1 CAPLUS
CN Carbamic acid,
N-[2-[7-[(2S)-3-(4-cyano-2-fluorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

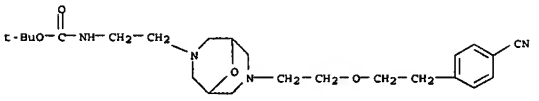
Absolute stereochemistry.



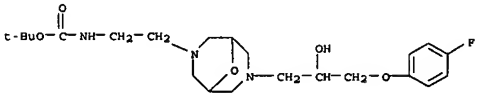
L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



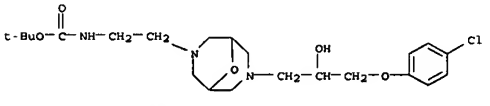
RN 917227-07-7 CAPLUS
CN Carbamic acid, N-[2-[7-[2-[2-(4-cyanophenyl)ethoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 917227-09-9 CAPLUS
CN Carbamic acid, N-[2-[7-[3-(4-fluorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



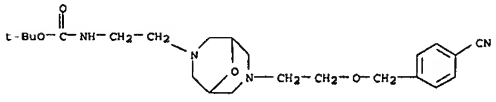
RN 917227-10-2 CAPLUS
CN Carbamic acid, N-[2-[7-[3-(4-chlorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



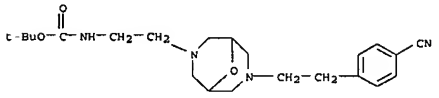
RN 917227-11-3 CAPLUS
CN Carbamic acid, N-[2-[7-[2-[2-(4-cyanophenoxy)ethoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 917227-02-2 CAPLUS
CN Carbamic acid, N-[2-[7-[2-[(4-cyanophenyl)methoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

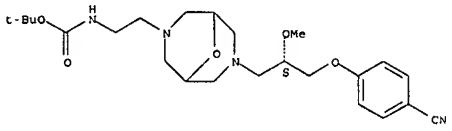


RN 917227-03-3 CAPLUS
CN Carbamic acid, N-[2-[7-[2-(4-cyanophenyl)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 917227-04-4 CAPLUS
CN Carbamic acid,
N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-methoxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

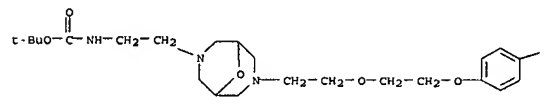
Absolute stereochemistry.



RN 917227-06-6 CAPLUS
CN Carbamic acid, N-[2-[7-[3-[(4-cyanophenyl)sulfonyl]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

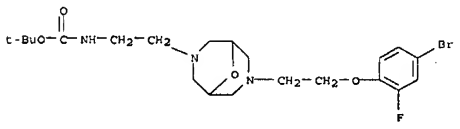
L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

PAGE 1-A

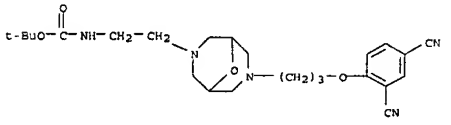


PAGE 1 B

RN 917227-12-4 CAPLUS
CN Carbamic acid, N-[2-[7-[2-(4-bromo-2-fluorophenoxy)ethyl]-9 oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



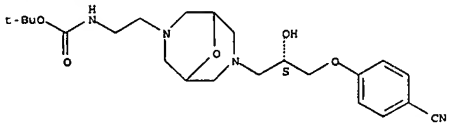
RN 917227-13-5 CAPLUS
CN Carbamic acid, N-[2-[7-[3-(2,4-dicyanophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



IT 335619-18-6P, tert-Butyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 473584-06-4P 473584-08-6P, tert-Butyl [2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamate 682742-70-7P

L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(new oxabispidine compds. for treatment of cardiac arrhythmias)
RN 335619-18-6 CAPLUS
CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

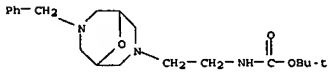
Absolute stereochemistry.



RN 473584-06-4 CAPLUS
CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (CA INDEX NAME)

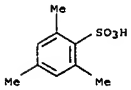
CM 1

CRN 473584-04-2
CMF C20 H31 N3 O3

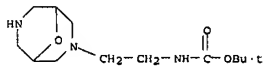


CM 2

CRN 3453-83-6
CMF C9 H12 O3 S



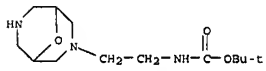
L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
RN 473584-08-6 CAPLUS
CN Carbamic acid, N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 682742-70-7 CAPLUS
CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamate (1:1) (CA INDEX NAME)

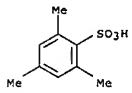
CM 1

CRN 473584-08-6
CMF C13 H25 N3 O3



CM 2

CRN 3453-83-6
CMF C9 H12 O3 S



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1350320 CAPLUS
DOCUMENT NUMBER: 144:69869
TITLE: Preparation of novel oxabispidine compounds and their use in the treatment of cardiac arrhythmias
INVENTOR(S): Bjoere, Annika; Bonn, Peter; Gran, Ulrik; Kajanus, Johan; Olsson, Christina; Ponten, Fritiof
PATENT ASSIGNEE(S): AstraZeneca AB, Swed.
SOURCE: PCT Int. Appl., 169 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005123748	A1	20051229	WO 2005-SE891	20050613
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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AU 2005254924	A1	20051229	AU 2005-254924	20050613
CA 2568895	A1	20051229	CA 2005-2568895	20050613
EP 1765832	A1	20070328	EP 2005-752679	20050613
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CN 1968956	A	20070523	CN 2005-80019259	20050613
WO 2006135316	A1	20061221	WO 2006-SE688	20060612
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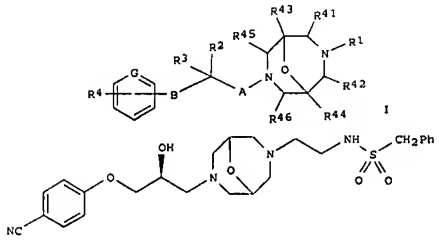
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
IN 2006DN07282	A	20070427	IN 2006-DN7282	20061204
NO 2007000148	A	20070109	NO 2007-148	20070109
PRIORITY APPLN. INFO.:			SE 2004-1539 A	20040615
			WO 2005-SE891 W	20050613
			SE 2005-2775 A	20051215

OTHER SOURCE(S): MARPAT 144:69869
GI

L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



II

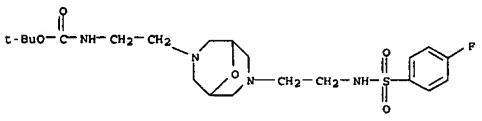
AB There is provided oxabispidines (shown as I; variables defined below; e.g. N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-1-phenylmethanesulfonamide (shown as II)), which are useful in the prophylaxis and in the treatment of arrhythmias, in particular atrial and ventricular arrhythmias. For I: R1 = C1-12 alkyl, -C(O)XR7, -C(O)N(R8a)R5d or -S(O)2R9a; R2 = H, halo, C1-6alkyl, OR13, EN(R14)R15 or, together with R3, carbonyl O; R3 = H, C1-6alkyl or, together with R3, carbonyl O; A = direct bond, -J-, -JN(R19a)-, -JS(O)2N(R19b)-, -JN(R19c)S(O)2-, -JO- (in which latter 4 groups, -J is attached to the oxabispidine ring N); B = -Z{[C(O)]aC(H)(R20a)}b-, -Z[C(O)]cN(R20b)-, -ZN(R20c)S(O)2-, -ZS(O)2N(R20d)-, -ZS(O)n-, -ZO- (in which six groups Z is attached to the C atom bearing R2 and R3), -N(R20e)Z-, -N(R20f)S(O)2Z-, -S(O)2N(R20g)Z- or N(R20h)CO2Z- (in which latter 4 groups, Z is attached to the Ph or pyridyl group); J = C1-6alkylene optionally substituted; Z = a direct bond or C1-4 alkylene; G = CH or N; R4 = ≥1 optional -OH, cyano, halo, nitro, C1-6 alkyl (optionally terminated by -N(H)C(O)OR21a), C1-6 alkoxy, -N(R22a)R22b, -C(O)R22c, -C(O)OR22d -C(O)N(R22e)R22f -N(R22g)C(O)R22h, -N(R22i)C(O)N(R22j)R22k, -N(R22m)S(O)2R21b, -S(O)2N(R22n)R22o, -S(O)2R21c, -OS(O)2R21d and aryl; and R41 to R46 = H or C1 3 alkyl; addnl. details including provisos are given in the claims. Methods of preparation are claimed and prepns. and/or characterization data for .apprx.12 examples of I and many intermediates are included. For example, II was prepared (72 %) from phenylmethanesulfonyl chloride and 4-[[(2S)-3-[7-(2-aminoethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]-2-hydroxypropyl]oxy]benzonitrile, the latter of which was prepared (69 %) by deprotection of tert Bu [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-

L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
yl)ethyl]carbamate. The example I were tested for primary electrophysiol.
effects in anesthetized guinea pigs and exhibit D10 >5.5. The example I were tested in a Rb+-efflux assay for detection of HERG channel blockers and exhibit pIC50 >4.5, e.g. 5.72 for II.

IT 872046-32-7P, tert-Butyl [2-[7-[2-[[(4-fluorophenyl)sulfonyl]amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of novel oxabispidine compds. and their use in
treatment of cardiac arrhythmias)

RN 872046-32-7 CAPLUS

CN Carbamic acid, [2-[7-[2-[[(4-fluorophenyl)sulfonyl]amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



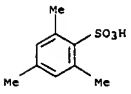
IT 335619-18-6, tert-Butyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate
473584-08-6, tert-Butyl [2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamate 682742-70-7, [2-(9-Oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamic acid tert-butyl ester 2,4,6-trimethylbenzenesulfonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of novel oxabispidine compds. and their use in treatment of
cardiac arrhythmias)

RN 335619-18-6 CAPLUS

CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

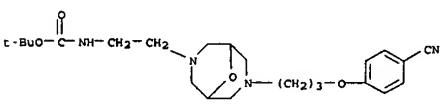
L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



IT 335620-86-5P, [2-[7-[3-(4-Cyanophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamic acid tert-butyl ester
872045-68-6P, [2-[7-[2-(4-Cyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamic acid tert-butyl ester diacetate
872045-91-5P, [2-[7-[2-(4-Cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamic acid tert-butyl ester
872046-15-6P, tert-Butyl [2-[7-(4-cyanobenzyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 872046-16-7P, tert-Butyl [2-[7-(4-cyanobenzyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate acetate formate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of novel oxabispidine compds. and their use in treatment of
cardiac arrhythmias)

RN 335620-86-5 CAPLUS

CN Carbamic acid, [2-[7-[3-(4-cyanophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

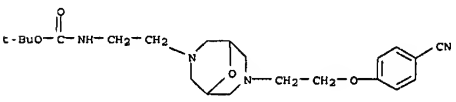


RN 872045-68-6 CAPLUS

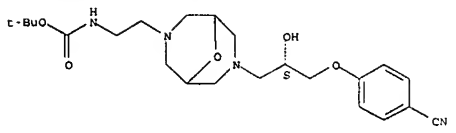
CN Carbamic acid, [2-[7-[2-(4-cyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, diacetate (9CI) (CA INDEX NAME)

CM 1

CRN 335620-57-0
CMF C22 H32 N4 O4

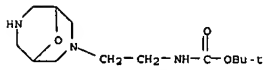


L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 473584-08-6 CAPLUS

CN Carbamic acid, N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

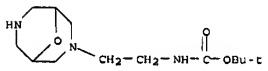


RN 682742-70-7 CAPLUS

CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamate (1:1) (CA INDEX NAME)

CM 1

CRN 473584-08-6
CMF C13 H25 N3 O3



CM 2

CRN 3453-83-6
CMF C9 H12 O3 S

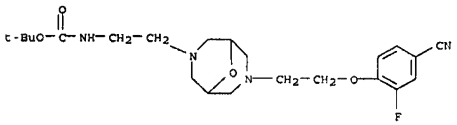
L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CM 2

CRN 64-19-7
CMF C2 H4 O2

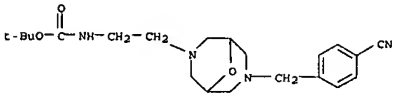
RN 872045-91-5 CAPLUS

CN Carbamic acid, N-[2-[7-[2-(4-cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 872046-15-6 CAPLUS

CN Carbamic acid, N-[2-[7-[(4-cyanophenyl)methyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



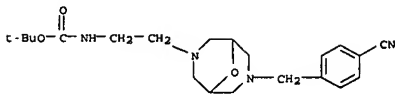
RN 872046-16-7 CAPLUS

CN Carbamic acid, [2-[7-[(4-cyanophenyl)methyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, acetate formate (9CI) (CA INDEX NAME)

CM 1

CRN 872046-15-6
CMF C21 H30 N4 O3

L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

CRN 64-19-7
CMF C2 H4 O2

CM 3

CRN 64-18-6
CMF C H2 O2

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

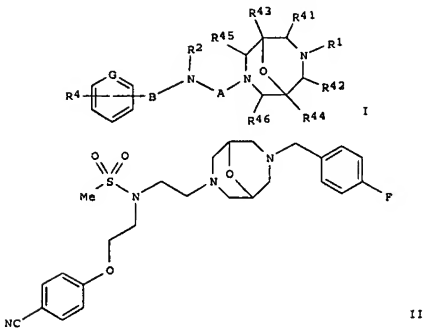
L4 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1350302 CAPLUS
DOCUMENT NUMBER: 144:69868
TITLE: Preparation of novel oxabispidine compounds and their use in the treatment of cardiac arrhythmias
INVENTOR(S): Bjoerе, Annika; Gran, Ulrik; Strandlund, Gert
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 124 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005123747	A1	20051229	WO 2005-SE890	20050613
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2005254923	A1	20051229	AU 2005-254923	20050613
CA 2569308	A1	20051229	CA 2005-2569308	20050613
EP 1765831	A1	20070328	EP 2005-751920	20050613
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU				
CN 1968957	A	20070523	CN 2005-80019875	20050613
IN 2006DN07284	A	20070427	IN 2006-DN7284	20061204
NO 2007000147	A	20070109	NO 2007-147	20070109
PRIORITY APPLN. INFO.:			SE 2004-1540 A	20040615
			WO 2005-SE890 W	20050613

OTHER SOURCE(S): MARPAT 144:69868
GI

L4 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



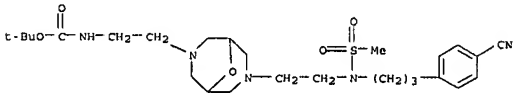
II

AB There is provided oxabispidines (shown as I; variables defined below; e.g.
N-[2-(4-Cyanophenoxy)ethyl]-N-[2-[7-(4-fluorobenzyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]methanesulfonamide (shown as II)), which
are useful in the prophylaxis and in the treatment of arrhythmias, in particular atrial and ventricular arrhythmias. For I: R1 = C1-12 alkyl, -C(O)XR7, -C(O)N(R8a)R5d or -S(O)2R9a; R2 = -S(O)2R3a, -C(O)OR3b, -C(O)R3c, C(O)N(R3d)(R3e) or -S(O)2N(R3f)(R3g); A = C2-6 alkylene optionally interrupted by -S(O)2N(R8a)- or -N(R18b)S(O)2- and/or (un)substituted by ≥1 -OH, halo and amino; B = -Z1{[C(O)]aC(H)(R19a)}b-, -Z2[C(O)]cN(R19b)-, -Z2S(O)n-, -Z2N(R18c)S(O)2-, -Z2S(O)2N(R18d)- or -Z2O- (in which six groups Z1 or Z2 are attached to the N atom bearing R2); Z1 = a direct bond or C1-4 alkylene; Z2 = C2-4 alkylene; G = CH or N; R4 = ≥1 optional -OH, cyano, halo, nitro, C1-6 alkyl (optionally terminated by -N(H)C(O)OR21a), C1-6 alkoxy, -N(R22a)R22b, -C(O)R22c, -C(O)OR22d -C(O)N(R22e)R22f -N(R22g)C(O)R22h, -N(R22i)C(O)N(R22j)R22k, -N(R22m)S(O)2R21b, -S(O)2N(R22n)R22o, -S(O)2R21c,
-OS(O)2R21d and aryl; and R41 to R46 = H or C1-3 alkyl; addnl. details including provisos are given in the claims. Methods of preparation are claimed
and prepns. and/or characterization data for .apprx.15 examples of I and many intermediates are included. For example, II was prepared in 3 steps (46, 99, 63 %, resp.) starting with preparation of 7-[2-[[2-(4-cyanophenoxy)ethyl](methylsulfonyl)amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]nonane-3-carboxylic acid tert-Bu ester from N-(2-bromoethyl)-N-[2-(4-cyanophenoxy)ethyl]methanesulfonamide (preparation
given) and 9-oxa-3,7-diazabicyclo[3.3.1]nonane-3-carboxylic acid tert-Bu ester, with subsequent deprotection and N-alkylation by 1-bromomethyl-4-fluorobenzene. The example I were tested for primary

L4 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
electrophysiol. effects in anesthetized guinea pigs and exhibit D10 >5.5. The example I were tested in a Rb+-efflux assay for detection of HERG channel blockers and exhibit pIC50 >4.5, e.g. 5.8 for II.

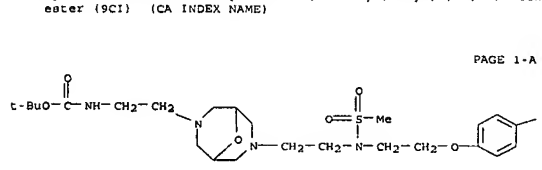
IT 872007-87-9P, tert-Butyl [2-[7-[2-[[3-(4-cyanophenyl)propyl](methylsulfonyl)amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 872008-52-1P, tert-Butyl
[2-[7-[2-[[2-(4-cyanophenoxy)ethyl](methylsulfonyl)amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 872008-53-2P, tert-Butyl
[2-[7-[2-[(aminocarbonyl)[2-(4-cyanophenoxy)ethyl]amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of novel oxabispidine compds. and their use in
treatment of cardiac arrhythmias)

RN 872007-87-9 CAPLUS
CN Carbamic acid,
[2-[7-[2-[[3-(4-cyanophenyl]propyl](methylsulfonyl]amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]] , 1,1 dimethylethyl ester (9CI) (CA INDEX NAME)



RN 872008-52-1 CAPLUS
CN Carbamic acid,
[2-[7-[2-[[2-(4-cyanophenoxy)ethyl](methylsulfonyl)amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

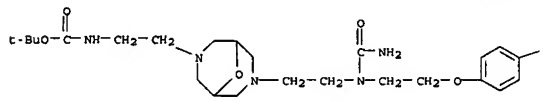


PAGE 1-B

own work

L4 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
RN 872008-53-2 CAPLUS
CN Carbamic acid, [2-[7-[2-[(aminocarbonyl)[2-(4-cyanophenoxy)ethyl]amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

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REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L4 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:354952 CAPLUS
DOCUMENT NUMBER: 140:357385
TITLE: Preparation of oxabispidine chemical intermediates and
acid addition salts
INVENTOR(S): Cladingboel, David
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004035592	A1	20040429	WO 2003-SE1594	20031013
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2501413	A1	20040429	CA 2003-2501413	20031013
AU 2003269768	A1	20040504	AU 2003-269768	20031013
EP 1554285	A1	20050720	EP 2003-751697	20031013
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003015112	A	20050816	BR 2003-15112	20031013
CN 1705671	A	20051207	CN 2003-80101351	20031013
JP 2006505565	T	20060216	JP 2004-545133	20031013
NZ 539371	A	20061027	NZ 2003-539371	20031013
ZA 2005002579	A	20060222	ZA 2005-2579	20050330
NO 2005001627	A	20050506	NO 2005-1627	20050401
US 2006199814	A1	20060907	US 2005-532223	20050406
MX 2005PA03812	A	20050608	MX 2005-PA3812	20050408
PRIORITY APPLN. INFO.:			GB 2002-23712	A 20021014
			WO 2003-SE1594	W 20031013

OTHER SOURCE(S): CASREACT 140:357385; MARPAT 140:357385
GI

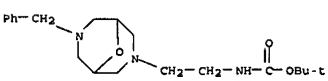
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB An acid addition salt of a compound I [R2 = C1-6 alkyl (optionally substituted
and/or terminated by one or more substituents selected from -OH, halo,

L4 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
cyano, nitro and aryl) or aryl, wherein each aryl and aryloxy group, unless otherwise specified, is optionally substituted] which is prepd. from R16SO3H [R16 = C1-4-alkyl, C1-4-perfluoroalkyl, (un)substituted Ph (optional substituents = C1-6-alkyl, halo, NO2, C1-4-alkoxy); esp., 4-MeC6H4SO3H, PhSO3H, mesylate, brosylate, besylate, mesitylate]. A process for the prepn. of oxabispidine deriv. II [R1 = ACR3R4BR5; A = CH2;
R3 = OH, NHR7; R4 = H, C1-6-alkyl; R3R4 = O; R5 = (un)substituted Ph, pyridyl (optionally substituted by OH, CN, halo, NO2, C1-6-alkyl); R7 = H,
C1-6-alkyl, E-aryl, E-heteroaryl, C(:NH)NH2; E = bond, C1-4-alkylene; B = Z, ZNR12, NR12Z, ZS(O)n, ZO (where Z is attache to the R3, R4 carbon); Z = bond, C1-4-alkylene; R12 = H, C1-6-alkyl; n = 0, 1, 2; etc.] wherein salt of I is coupled with heterocycle III [Y = O, NR7]. Thus, 2,4,6-trimethylbenzenesulfonic acid addn. salt of I (R2 = CMe3) was prepd.
from PhSO2NH2 via alkylation with epichlorohydrin to its bis(oxiranylmethyl) deriv., cyclization with PhCH2NH2 to the diazacyclooctane, intramol. cyclization to the 9-oxa-3,7-diazabicyclo[3.3.1]nonane deriv., desulfonylation, coupling with 2-{[(tert-butyloxycarbonyl)amino]ethyl 2,4,6-trimethylbenzenesulfonate, to give an acid addn. salt and hydrogenolytic debenzylation.
2,4,6-Trimethylbenzenesulfonic acid addn. salt of I (R2 = CMe3) was converted to oxabispidine deriv. IV by reaction with 4-[(2S)-oxiranylmethoxy]benzonitrile (V).
IT 473584-06-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrogenolytic debenzylation; preparation of oxabispidine chemical
intermediates and acid addition salts)
RN 473584-06-4 CAPLUS
CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (CA INDEX NAME)

CM 1

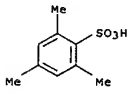
CRN 473584-04-2
CMF C20 H31 N3 O3



CM 2

CRN 3453-83-6
CMF C9 H12 O3 S

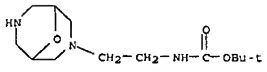
L4 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



IT 682742-70-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with 4-[(2S)-oxiranylmethoxy]benzonitrile;
preparation of oxabispidine chemical intermediates and acid addition salts)
RN 682742-70-7 CAPLUS
CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamate (1:1) (CA INDEX NAME)

CM 1

CRN 473584-08-6
CMF C13 H25 N3 O3



CM 2

CRN 3453-83-6
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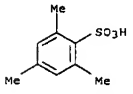
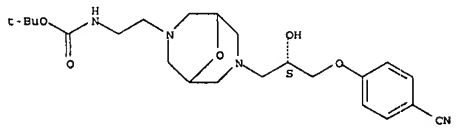
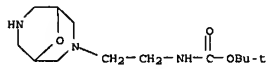


IT 335619-18-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of oxabispidine chemical intermediates and acid addition salts)
RN 335619-18-6 CAPLUS
CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

L4 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
Absolute stereochemistry.



IT 473584-08-6DP, acid addition salts
RL: SPN (Synthetic preparation); PREP (Preparation)
(reaction of, with 4-[(2S)-oxiranylmethoxy]benzonitrile; preparation of
oxabispidine chemical intermediates and acid addition salts)
RN 473584-08-6 CAPLUS
CN Carbamic acid, N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:972050 CAPLUS
DOCUMENT NUMBER: 140:27751
TITLE: Preparation of azetidinylbenzamidines and related compounds for combination therapy of arrhythmia or coagulation controlled complications thereof.
INVENTOR(S): Roth-Rosendahl, Ann-Charlotte; Svernhage, Elisabeth
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 160 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003101956	A1	20031211	WO 2003-SE854	20030527
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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CA 2486110	A1	20031211	CA 2003-2486110	20030527
AU 2003232711	A1	20031219	AU 2003-232711	20030527
BR 2003011138	A	20050301	BR 2003-11138	20030527
EP 1513807	A1	20050316	EP 2003-756136	20030527
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CN 1656066	A	20050817	CN 2003-811734	20030527
JP 2005532345	T	20051027	JP 2004-509650	20030527
NO 2004004673	A	20041207	NO 2004-4673	20041028
ZA 2004008787	A	20051020	ZA 2004-8787	20041029
IN 2004DN03380	A	20050401	IN 2004-DN3380	20041101
MX 2004PA11910	A	20050331	MX 2004-PA11910	20041129
US 2006052314	A1	20060309	US 2005-516426	20050628
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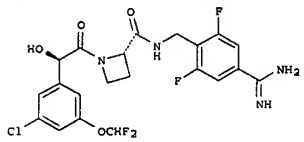
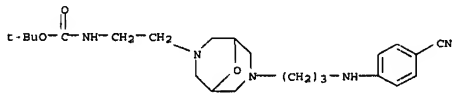
L4 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



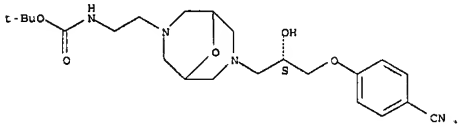
I

AB A combination product comprising: (a) a compound of claim 1 in WO 02/44145
or a pharmaceutically-acceptable derivative thereof; and (b) (1) a compound as
defined in claim 1 of WO 01/28992 or (2) a compound of Claim 34 of WO 01/28992 or (3) Compound A [4-[[3-(7-(3,3-dimethyl-2-oxobutyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]propyl]amino]benzonitrile] or B [tert-Bu 2-[7-[3-(4-cyanoanilino)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate] or C [tert-Bu 2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate] or D [tert-Bu 2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate] or pharmaceutically acceptable
salts thereof in admixt. with a pharmaceutically acceptable adjuvant, diluent or carrier, is claimed. Thus, title compound (I) (multistep preparation
given) showed an IC50 TT value of <0.02 μM.
IT 335619-16-4 335619-18-6 633336-84-2
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combination therapy; preparation of azetidinylbenzamidines and related
compds. for combination therapy of arrhythmia or coagulation controlled
complications thereof)
RN 335619-16-4 CAPLUS
CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

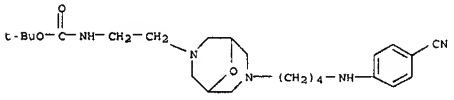


RN 335619-18-6 CAPLUS
CN Carbamic acid,
N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

L4 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
Absolute stereochemistry.



RN 633336-84-2 CAPLUS
CN Carbamic acid, [2-[7-[4-[(4-cyanophenyl)amino]butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



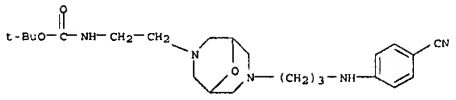
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:892637 CAPLUS
DOCUMENT NUMBER: 139:369750
TITLE: A combination product comprising melagatran and an antiarrhythmic oxabispidene
INVENTOR(S): Svernhage, Elisabeth
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

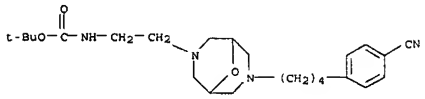
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003092721	A1	20031113	WO 2003-SE720	20030505
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2483001	A1	20031113	CA 2003-2483001	20030505
AU 2003224590	A1	20031117	AU 2003-224590	20030505
EP 1503782	A1	20050209	EP 2003-721266	20030505
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003009354	A	20050215	BR 2003-9354	20030505
CN 1652811	A	20050810	CN 2003-810212	20030505
JP 2005531546	T	20051020	JP 2004-500904	20030505
IN 2004DN03033	A	20070420	IN 2004-DN3033	20041005
NO 2004004554	A	20041116	NO 2004-4554	20041022
ZA 2004008615	A	20060426	ZA 2004-8615	20041025
MX 2004PA10716	A	20050307	MX 2004-PA10716	20041028
US 2006074080	A1	20060406	US 2004-513187	20041101
PRIORITY APPLN. INFO.:			SE 2002-1373 A	20020506
			WO 2003-SB720 W	20030505
			WO 2003-SE720 W	20030505

OTHER SOURCE(S): MARPAT 139:369750
AB There is provided a combination product comprising: (1) melagatran or a pharmaceutically-acceptable derivative thereof; and (1) a compound as defined in claim 1 of WO 01/28992 or (2) a compound of Claim 34 of WO 01/28992 or (3) Compound A or B or C or D (or pharmaceutically-acceptable salts thereof) for use in treating arrhythmia or a coagulation controlled complication thereof.

L4 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
IT 335619-16-4 335619-17-5 335619-18-6 335619-20-0 335620-25-2 335620-57-0 335620-86-5 335620-91-2 335620-92-3 335620-93-4
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combination product comprising melagatran and an antiarrhythmic oxabispidene)
RN 335619-16-4 CAPLUS
CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

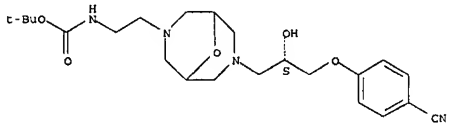


RN 335619-17-5 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



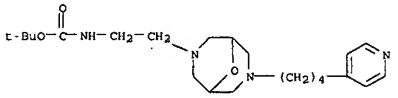
RN 335619-18-6 CAPLUS
CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

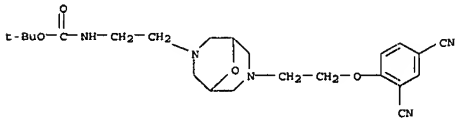


L4 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

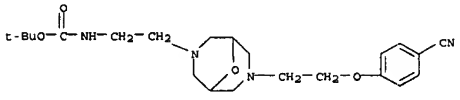
RN 335619-20-0 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-pyridinyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-25-2 CAPLUS
CN Carbamic acid, [2-[7-[2-(2,4-dicyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

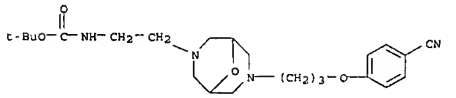


RN 335620-57-0 CAPLUS
CN Carbamic acid, [2-[7-[2-(4-cyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

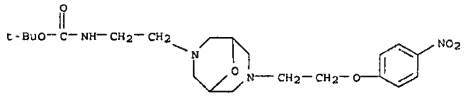


RN 335620-86-5 CAPLUS
CN Carbamic acid, [2-[7-[3-(4-cyanophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

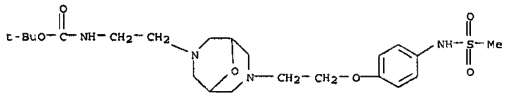
L4 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



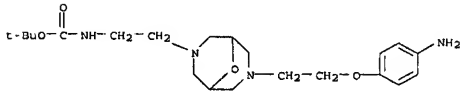
RN 335620-91-2 CAPLUS
CN Carbamic acid, [2-[7-[2-(4-nitrophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-92-3 CAPLUS
CN Carbamic acid, [2-[7-[2-[4-[(methylsulfonyl)amino]phenoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-93-4 CAPLUS
CN Carbamic acid, [2-[7-[2-(4-aminophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L4 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:892636 CAPLUS
DOCUMENT NUMBER: 139:369749
TITLE: A combination product comprising an anti coagulant and anti-arrhythmic oxabispidenes
INVENTOR(S): Roth-Rosendahl, Ann-Charlotte; Svernhage, Elisabeth
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003092720	A1	20031113	WO 2003-SE719	20030505
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2485086	A1	20031113	CA 2003-2485086	20030505
AU 2003230517	A1	20031117	AU 2003-230517	20030505
EP 1503783	A1	20050209	EP 2003-723588	20030505
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003009336	A	20050308	BR 2003-9336	20030505
US 2005119259	A1	20050602	US 2003-513190	20030505
CN 1652812	A	20050810	CN 2003-810327	20030505
JP 2005529140	T	20050929	JP 2004-500903	20030505
IN 2004DN03029	A	20070420	IN 2004-DN3029	20041005
NO 2004004555	A	20041116	NO 2004-4555	20041022
ZA 2004008618	A	20060628	ZA 2004-8618	20041025
MX 2004PA10717	A	20050307	MX 2004-PA10717	20041028
PRIORITY APPLN. INFO.:			SE 2002-1374 A	20020506
			WO 2003-SE719 W	20030505

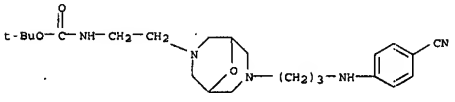
OTHER SOURCE(S): MARPAT 139:369749

AB There is provided a combination product comprising: (1) an anti-coagulant;
and (1) a compound as defined in claim 1 of WO 01/28992 or (2) a compound of
Claim 34 of WO 01/28992 or (3) Compound A or B or C or D (or pharmaceutically-acceptable salts thereof) for use in treating arrhythmia or a coagulation controlled complication thereof.

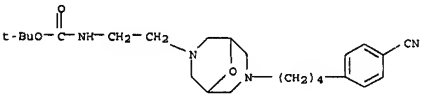
IT 335619-16-4 335619-17-5 335619-18-6
335619-20-0 335620-25-2 335620-57-0
335620-86-5 335620-91-2 335620-92-3

L4 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
335620-93-4
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combination product comprising an anticoagulant and antiarrhythmic oxabispidenes)

RN 335619-16-4 CAPLUS
CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

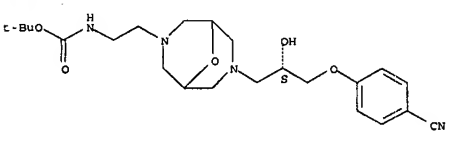


RN 335619-17-5 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



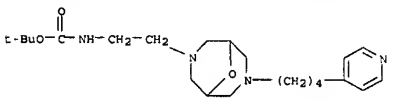
RN 335619-18-6 CAPLUS
CN Carbamic acid,
N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

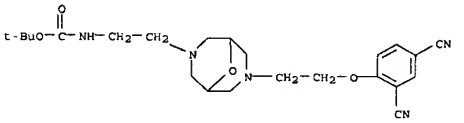


RN 335619-20-0 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-pyridinyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

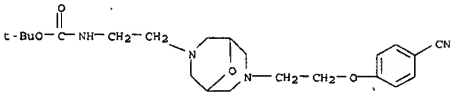
L4 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



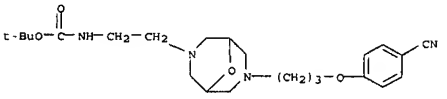
RN 335620-25-2 CAPLUS
CN Carbamic acid, [2-[7-[2-(2,4-dicyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-57-0 CAPLUS
CN Carbamic acid, [2-[7-[2-(4-cyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

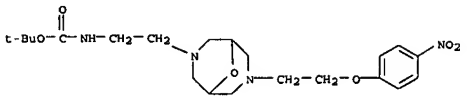


RN 335620-86-5 CAPLUS
CN Carbamic acid, [2-[7-[3-(4-cyanophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

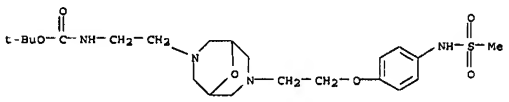


RN 335620-91-2 CAPLUS
CN Carbamic acid, [2-[7-[2-(4-nitrophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA

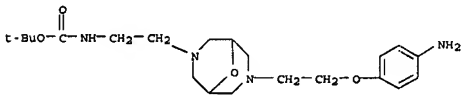
L4 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
INDEX NAME)



RN 335620-92-3 CAPLUS
CN Carbamic acid, [2-[7-[2-[4-[(methylsulfonyl)amino]phenoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-93-4 CAPLUS
CN Carbamic acid, [2-[7-[2-(4-aminophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



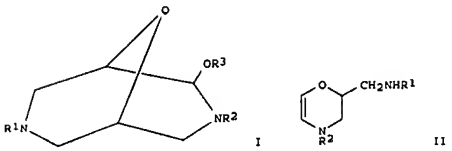
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L4 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:434566 CAPLUS
DOCUMENT NUMBER: 139:22219
TITLE: Process for the preparation of 2- or 9-oxa-3,7 diazabicyclo[3.3.1]nonanes from 2-aminomethyl-2,3-dihydrooxazines
INVENTOR(S): Gill, Duncan Michael
PATENT ASSIGNEE(S): Astrazeneca A.B., Swed.; Astrazeneca UK Limited
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003045956	A1	20030605	WO 2002-GB5262	20021120
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2465840	A1	20030605	CA 2002 2465840	20021120
AU 2002343067	A1	20030610	AU 2002-343067	20021120
BR 2002014225	A	20040921	BR 2002-14225	20021120
EP 1468001	A1	20041020	EP 2002-779729	20021120
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1589272	A	20050302	CN 2002-823148	20021120
JP 2005514376	T	20050519	JP 2003-547406	20021120
ZA 2004003782	A	20050317	ZA 2004-3782	20040517
MX 2004PA04708	A	20040819	MX 2004-PA4708	20040518
US 2005014940	A1	20050120	US 2004-496498	20040521
NO 2004002593	A	20040820	NO 2004-2593	20040621
PRIORITY APPLN. INFO.:			SE 2001-3908 A	20011122
			WO 2002-GB5262 W	20021120

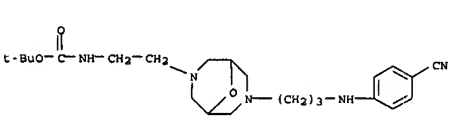
OTHER SOURCE(S): CASREACT 139:22219; MARPAT 139:22219
GI

L4 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

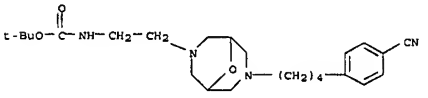


I II

AB Oxadiazabicyclononanes I [R1 = H, aryl, (un)substituted alkyl; R2 = protective group; R3 = alkyl, CH2Ph] were prepared by treating an aminomethyldihydrooxazine II with either: (a) a formaldehyde and R3OH and/or (b) a protected derivative of a formaldehyde. Thus, I [R1 = CH2Ph, R2 = CO2CH2Ph, R3 = Me] was prepared from N-oxiranylmethylphthalimide and PhCH2NHCH2CH(OMe)2 via cyclization of II [R1 = CH2Ph, R2 = CO2CH2Ph] with CH2(OMe)2 and paraformaldehyde. Hydrogenation of II [R1 = CH2Ph, R2 = CO2CH2Ph] over Pd-C gave 3-benzyl-9-oxa-3,7-diazabicyclo[3.3.1]nonane.
IT 335619-16-4P 335619-17-5P 537977-46-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(process for the preparation of 2- or 9-oxa-3,7-diazabicyclo[3.3.1]nonanes from 2-aminomethyl-2,3-dihydrooxazines)
RN 335619-16-4 CAPLUS
CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

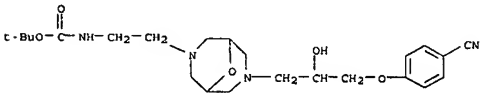


RN 335619-17-5 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 537977-46-1 CAPLUS

L4 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN Carbamic acid, [2-[7-[3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



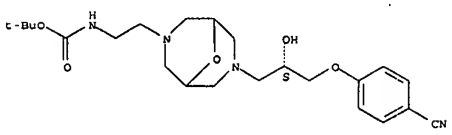
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L4 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:5810 CAPLUS
DOCUMENT NUMBER: 138:78457
TITLE: Oral pharmaceutical formulations containing ι-carrageenan and gelling polymers
INVENTOR(S): Gaik-Lim Khoo, Cynthia; Gustafsson, Helena
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003000293	A1	20030103	WO 2002-SE1217	20020619
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2450449	A1	20030103	CA 2002-2450449	20020619
AU 2002345463	A1	20030108	AU 2002-345463	20020619
EP 1401502	A1	20040331	EP 2002-744027	20020619
EP 1401502	B1	20051228		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
EE 200400028	A	20040415	EE 2004-28	20020619
BR 2002010489	A	20040622	BR 2002-10489	20020619
CN 1518462	A	20040804	CN 2002-812534	20020619
HU 200400850	A2	20040830	HU 2004-850	20020619
JP 2005501024	T	20050113	JP 2003-506935	20020619
NZ 530086	A	20050930	NZ 2002-530086	20020619
AT 314093	T	20060115	AT 2002-744027	20020619
ES 2254699	T3	20060616	ES 2002-2744027	20020619
IN 2003MN01087	A	20051021	IN 2003-MN1087	20031127
ZA 2003009316	A	20050228	ZA 2003-9316	20031128
MX 2003PA11546	A	20040319	MX 2003-PA11546	20031211
BG 108516	A	20041230	BG 2004-108516	20040106
US 2004242536	A1	20041202	US 2004-481232	20040723
PRIORITY APPLN. INFO.:			SE 2001-2069 A	20010621
			SE 2001-4049 A	20011130
			SE 2002-1660 A	20020531
			WO 2002-SE1217 W	20020619

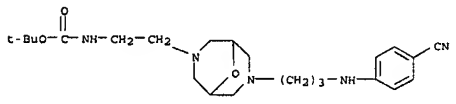
AB An oral pharmaceutical formulation comprising ι-carrageenan, one or more neutral gelling polymers and a basic pharmaceutical inhibits the release of the active ingredient from the formulation at acidic pH. A

L4 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

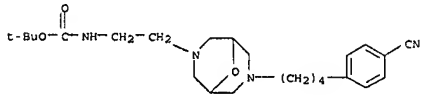


REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L4 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
process for the manuf. of the formulation and the use of the formulations are also disclosed. Tablets were obtained by the direct compression of H 376/95 (basic drug) 50.5, PEG 160.0, ι-carrageenan 40.0, and sodium stearyl fumarate 2.5 mg. The release of H376/95 from blends with varying compn. ratios of PEG and ι-carrageenan was detd. Blending different ratios of the anionic polymer, ι-carrageenan and the neutral gelling polymer PEG, the release rate in media with different pH can be modified.
IT 335619-16-4 335619-17-5 335619-18-6
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oral pharmaceutical formulations containing ι-carrageenan and gelling
polymers and basic drugs)
RN 335619-16-4 CAPLUS
CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335619-17-5 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335619-18-6 CAPLUS
CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl] , 1,1-dimethylethyl ester (CA INDEX NAME)

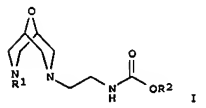
Absolute stereochemistry.

L4 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:814147 CAPLUS
DOCUMENT NUMBER: 137:325449
TITLE: Preparation of (alkoxycarbonylaminoethyl)oxabispidines by reaction of oxabispidines with alkoxycarbonylaminoethyl sulfonates or with acrylamide and alcohols.
INVENTOR(S): Cheema, Lal; Cladingboel, David; Sinclair, Rhona
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083690	A1	20021024	WO 2002-SE727	20020412
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2443475	A1	20021024	CA 2002-2443475	20020412
AU 2002249748	A1	20021028	AU 2002-249748	20020412
EP 1385850	A1	20040204	EP 2002-718766	20020412
EP 1385850	B1	20041208		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1520417	A	20040811	CN 2002-811575	20020412
BR 2002008861	A	20041019	BR 2002-8861	20020412
JP 2004533432	T	20041104	JP 2002-581445	20020412
AT 284405	T	20041215	AT 2002-718766	20020412
PT 1385850	T	20050331	PT 2002-718766	20020412
ES 2233809	T3	20050616	ES 2002-2718766	20020412
NZ 528515	A	20050624	NZ 2002-528515	20020412
IN 2003MN00904	A	20050715	IN 2003-MN904	20030924
ZA 2003007676	A	20040713	ZA 2003 7676	20031001
NO 2003004526	A	20031031	NO 2003-4526	20031009
MX 2003PA09211	A	20040129	MX 2003-PA9211	20031009
US 2004181060	A1	20040916	US 2004-474593	20040422
US 7169921	B2	20070130		
HK 1060886	A1	20050527	HK 2004-103893	20040531
PRIORITY APPLN. INFO.:			SE 2001-1324 A	20010412
			WO 2002-SE727 W	20020412

OTHER SOURCE(S): CASREACT 137:325449; MARPAT 137:325449
GI

L4 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



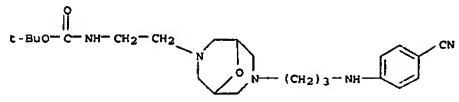
I

AB Title compds. [I; R1 = H, protecting group, R5BCR3R4A; R3 = H, halo, alkyl, etc.; R4 = H, alkyl; R3R4 = O; R5 = (substituted) Ph, pyridyl; A = bond, alkylene, alkyleneoxy, alkyleneimino, etc.; B = bond, alkylene, O, alkyleneoxy, etc.; R2 = (substituted) alkyl, aryl] were prepared by reaction of the corresponding oxabispidines with R16SO2OCH2CH2NHCO2R2 [R2 as above; R16 = alkyl, perfluoroalkyl, (substituted) Ph] or with acrylamide, followed by reaction of the resulting intermediate amide with R2OH and an agent that promotes, or agents that in combination promote, rearrangement and oxidation of the amide to an intermediate isocyanate, which may then react with R2OH. Thus, 3-benzyl-9-oxa-3,7-diazabicyclo[3.3.1]nonane dihydrochloride [preparation given] in H2O was added slowly to a solution of NaHCO3 in H2O; more H2O was added and the mixture was stirred at room temperature for 10 min. A solution of 2-(tert-butyloxycarbonylamino)ethyl tosylate (preparation given) in PhMe was added and the mixture was heated at 65-70° for 7 h and stirred at room temperature overnight to give [2-(7-benzyl-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamic acid tert-Bu ester.

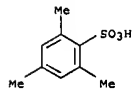
IT 335619-16-4P 335619-18-6P 473584-04-2P
473584-06-4P 473584-08-6P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of (alkoxycarbonylaminoethyl)oxabispidines by reaction of oxabispidines with alkoxycarbonylaminoethyl sulfonates or with acrylamide and alcs.)

RN 335619-16-4 CAPLUS

CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

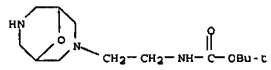


L4 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 473584-08-6 CAPLUS

CN Carbamic acid, N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



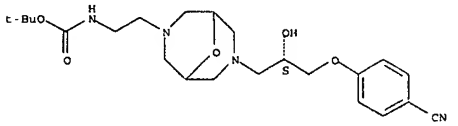
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 335619-18-6 CAPLUS

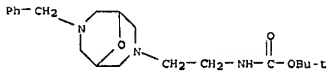
CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 473584-04-2 CAPLUS

CN Carbamic acid, N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

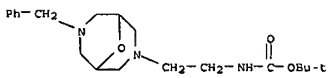


RN 473584-06-4 CAPLUS

CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (CA INDEX NAME)

CM 1

CRN 473584-04-2
CMF C20 H31 N3 O3



CM 2

CRN 3453-83-6
CMF C9 H12 O3 S

L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:814146 CAPLUS
DOCUMENT NUMBER: 137:316095
TITLE: Immediate-release formulations for 3,7 diazabicyclo antiarrhythmic compounds
INVENTOR(S): Hovdal, Christina; Lundgren, Anna
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 87 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083689	A1	20021024	WO 2002-SE726	20020412
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
TW 257391	B	20060701	TW 2002-91106495	20020401
CA 2443473	A1	20021024	CA 2002-2443473	20020412
AU 2002253750	A1	20021028	AU 2002-253750	20020412
EE 200300495	A	20031215	EE 2003-495	20020412
HU 200303486	A2	20040128	HU 2003-3486	20020412
EP 1389212	A1	20040218	EP 2002-723011	20020412
EP 1389212	B1	20060712		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
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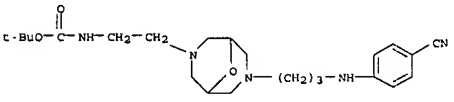
CN 1514839	A	20040721	CN 2002-811636	20020412
JP 2005500262	T	20050106	JP 2002-581444	20020412
NZ 528561	A	20050324	NZ 2002-528561	20020412
AT 332902	T	20060815	AT 2002-723011	20020412
IN 2003MN00905	A	20051021	IN 2003-MN905	20030924
ZA 2003007756	A	20050103	ZA 2003-7756	20031003
BG 108234	A	20050430	BG 2003-108234	20031006
NO 2003004529	A	20031208	NO 2003-4529	20031009
MX 2003PA09209	A	20040129	MX 2003-PA9209	20031009
US 2005037067	A1	20050217	US 2004-474584	20040311
PRIORITY APPLN. INFO.:			SE 2001-1329 A	20010412
			WO 2002-SE726 W	20020412

AB An immediate release pharmaceutical formulations are provided comprising, as active ingredient, 4-({3-[7-(3,3-dimethyl-2-oxobutyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]propyl}amino)benzonitrile (Compound A), tert-Bu 2-[7-[3-(4-cyanoanilino)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate, tert-Bu 2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate, or tert-Bu 2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate (Compound D), or a pharmaceutically-acceptable salt of any

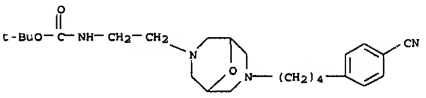
L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
of these compds., and a pharmaceutically acceptable diluent or carrier. Solid pharmaceutical compns. are also provided comprising these 3,7-diazabicyclo compds. as an active ingredient, that are suitable for the prepn. of immediate release pharmaceutical formulations, which may be prepd., for example by freeze-drying. The formulations and compns. are useful in the prophylaxis and/or treatment of cardiac arrhythmias. For example, Compd. A as benzenesulfonic acid salt 70 μmol was dissolved in a hydroxypropyl-β-cyclodextrin/water (40:60 by wt.) vehicle to 1 mL. The soly. of the salt was almost 40 times higher in this vehicle compared to water alone. Also, tablets were prepd. by compression of dry mixt. contg. 96.3 mg of dibasic calcium phosphate, 7.7 mg of sodium starch glycolate, 7.7 mg of HPMC, 3.8 mg of sodium stearyl fumarate, and 250 mg of Compd. D (free base). The final tablet wt. was about 365 mg and disintegration time was 90 s in water (37°).

IT 335619-16-4P 335619-17-5P 335619-18-6P
472961-25-4P 472961-26-5P 472961-30-1P
472992-81-7P 472992-82-8P 472992-83-9P
472992-84-0P 472992-85-1P 472992-86-2P
472992-87-3P 472992-88-4P 472992-89-5P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of immediate-release formulations for diazabicyclo antiarrhythmic compds.)

RN 335619-16-4 CAPLUS
CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335619-17-5 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



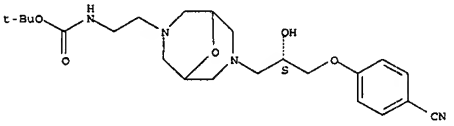
RN 335619-18-6 CAPLUS
CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-

L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

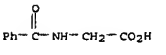
CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 495-69-2
CMF C9 H9 N O3

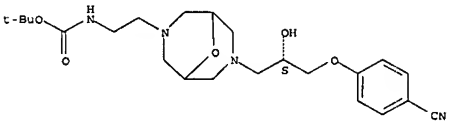


RN 472961-30-1 CAPLUS
CN Butanedioic acid, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

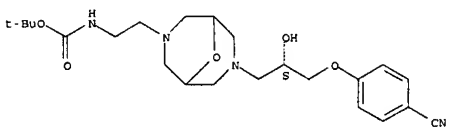
Absolute stereochemistry.



CM 2

L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

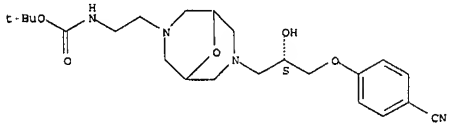


RN 472961-25-4 CAPLUS
CN Carbamic acid, [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 75-75-2
CMF C H4 O3 S

RN 472961-26-5 CAPLUS
CN Glycine, N-benzoyl-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-

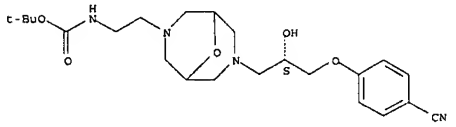
L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CRN 110-15-6
CMF C4 H6 O4

RN 472992-81-7 CAPLUS
CN L-Lysine, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1), monohydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

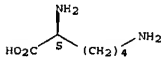
Absolute stereochemistry.



CM 2

CRN 56-87-1
CMF C6 H14 N2 O2

Absolute stereochemistry.



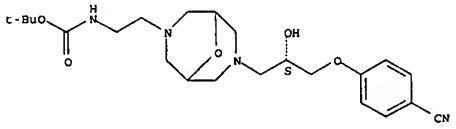
RN 472992-82-8 CAPLUS
CN 2-Naphthalenecarboxylic acid, 4,4'-methylenebis[3-hydroxy-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

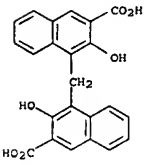
Absolute stereochemistry.

L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

CRN 130-85-8
CMF C23 H16 O6

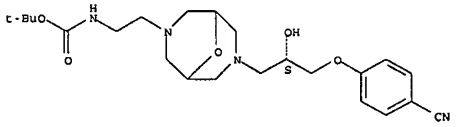


RN 472992-83-9 CAPLUS
CN 1,4-Benzenedicarboxylic acid, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.

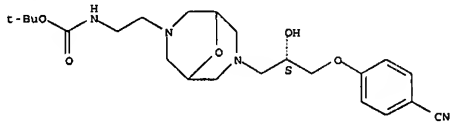


L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, 2-hydroxy-1,2,3-propanetricarboxylate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

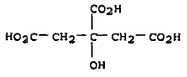
CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 77-92-9
CMF C6 H8 O7

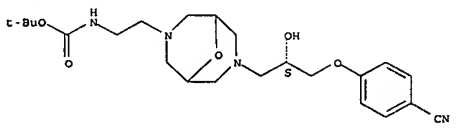


RN 472992-86-2 CAPLUS
CN Carbamic acid, [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

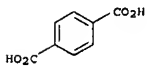
Absolute stereochemistry.



L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CM 2

CRN 100-21-0
CMF C8 H6 O4

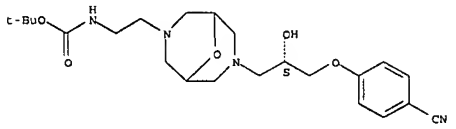


RN 472992-84-0 CAPLUS
CN Carbamic acid, [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

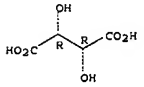
Absolute stereochemistry.



CM 2

CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.



RN 472992-85-1 CAPLUS
CN Carbamic acid, [2-[7-[(2S)-3-(4-cyanophenoxy) 2-hydroxypropyl] 9-oxa-3,7-

L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CM 2

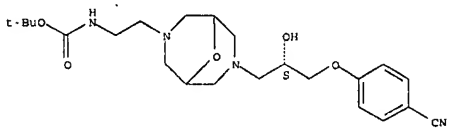
CRN 64-19-7
CMF C2 H4 O2

RN 472992-87-3 CAPLUS
CN Carbamic acid, [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1 dimethylethyl ester, monobenzoate
(salt) (9CI) (CA INDEX NAME)

CM 1

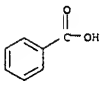
CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

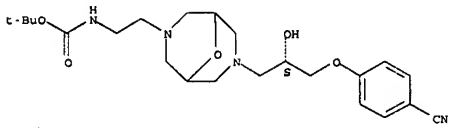
CRN 65-85-0
CMF C7 H6 O2



RN 472992-88-4 CAPLUS
CN Carbamic acid, [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

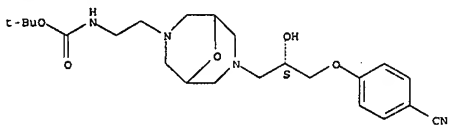
L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



● HCl

RN 472992-89-5 CAPLUS
CN Carbamic acid, [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, monohydrobromide (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HBr

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:814145 CAPLUS
DOCUMENT NUMBER: 137:316094
TITLE: Crystalline 3,7-diazabicyclo antiarrhythmic compounds
INVENTOR(S): Barnwell, Neil; Bjoere, Annika; Cheema, Lal; Cladingboel, David; Herring, Adam; Loevqvist, Karin
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 162 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083688	A1	20021024	WO 2002-SE725	20020412
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EE 200300504	A	20031215	EE 2003-504	20020412
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EP 1389213	A1	20040218	EP 2002-761972	20020412
EP 1389213	B1	20060412		
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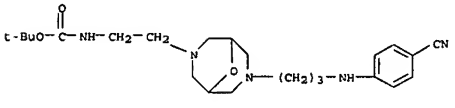
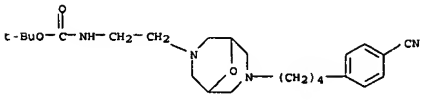
PRIORITY APPLN. INFO.:			SE 2001-1327	A 20010412
			EP 2002-761972	A3 20020412

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
WO 2002-SE725 W 20020412

AB Substantially crystalline forms are provided of 4-([3-[7-(3,3-dimethyl-2-oxobutyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]propyl]amino)benzonitrile (Compound A); tert-Bu 2-[7-[3-(4-cyanoanilino)propyl]-9-oxa-3,7-diazabicyclo-[3.3.1]non-3-yl]ethylcarbamate; tert-Bu 2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate; or tert-Bu 2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo-[3.3.1]non-3-yl]ethylcarbamate and pharmaceutically acceptable salts thereof, useful in the treatment of cardiac arrhythmias. For example, to 1.88 g of Compound A, dissolved in 23 mL Et acetate, was added 0.807 g of benzenesulfonic acid, dissolved in 4.5 mL methanol. The benzenesulfonate salt was precipitated, crystals were filtered off, washed with Et acetate and dried in vacuo (yield 1.6 g or 60%). The product was recrystd. from EtOH/H2O (1:1) and crystals were characterized by x-ray powder diffraction (XRPD).
IT 335619-16-4P 335619-17-5P 335619-18-6P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(preparation of crystalline diazabicyclo antiarrhythmic compds. for dosage forms)
RN 335619-16-4 CAPLUS
CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



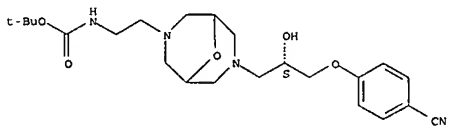
RN 335619-17-5 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335619-18-6 CAPLUS

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



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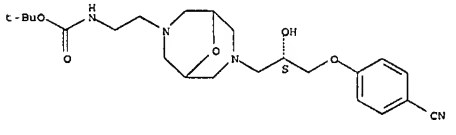
472961-31-2P 472961-32-3P 472961-33-4P
472961-34-5P 472961-35-6P 472961-37-8P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(preparation of crystalline diazabicyclo antiarrhythmic compds. for dosage forms)
RN 472961-25-4 CAPLUS
CN Carbamic acid, [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 75-75-2
CMF C H4 O3 S

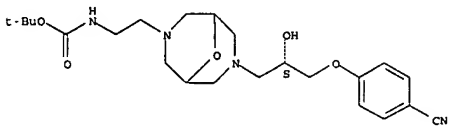
L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 472961-26-5 CAPLUS
CN Glycine, N-benzoyl-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

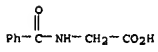
CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 495-69-2
CMF C9 H9 N O3

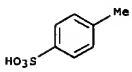


RN 472961-27-6 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 335619-17-5
CMF C24 H36 N4 O3

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

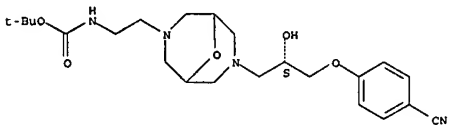


RN 472961-29-8 CAPLUS
CN Glycine, N-([1,1'-biphenyl]-4-ylcarbonyl)-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

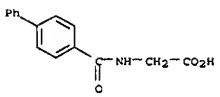
CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 75446-59-2
CMF C15 H13 N O3



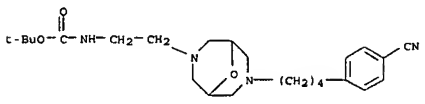
RN 472961-30-1 CAPLUS
CN Butanedioic acid, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



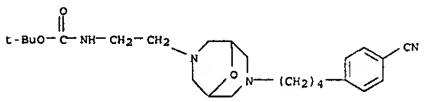
CM 2

CRN 75-75-2
CMF C H4 O3 S

RN 472961-28-7 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, mono(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

CM 1

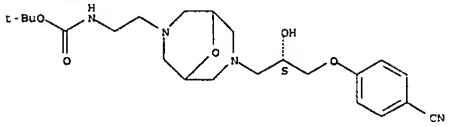
CRN 335619-17-5
CMF C24 H36 N4 O3



CM 2

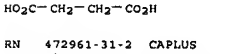
CRN 104-15-4
CMF C7 H8 O3 S

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

CRN 110-15-6
CMF C4 H6 O4

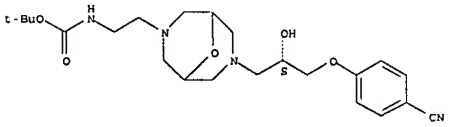


RN 472961-31-2 CAPLUS
CN Glycine, N-(3,4-dichlorobenzoyl)-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

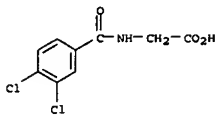
Absolute stereochemistry.



CM 2

CRN 17321-80-1
CMF C9 H7 Cl2 N O3

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

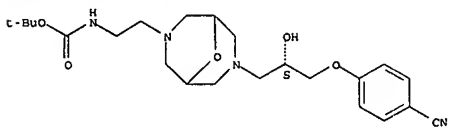


RN 472961-32-3 CAPLUS
CN Glycine, N-(2-naphthalenylcarbonyl)-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

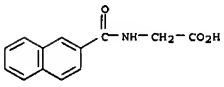
CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 69826-63-7
CMF C13 H11 N O3



RN 472961-33-4 CAPLUS
CN Butanedioic acid, tetramethyl-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

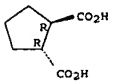
CM 1

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CM 2

CRN 1461-97-8
CMF C7 H10 O4

Relative stereochemistry.

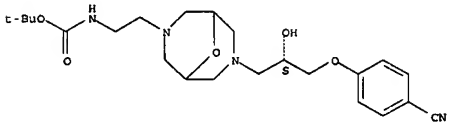


RN 472961-35-6 CAPLUS
CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2S,3S)-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

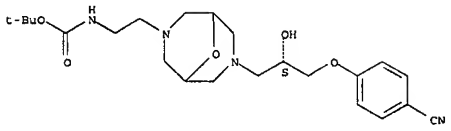
CRN 17026-42-5
CMF C18 H14 O8

Absolute stereochemistry. Rotation (+).

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

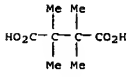
CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 630-51-3
CMF C8 H14 O4

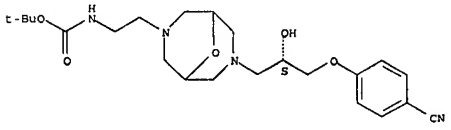


RN 472961-34-5 CAPLUS
CN 1,2-Cyclopentanedicarboxylic acid, (1R,2R)-rel , compd. with 1,1-dimethylethyl [2-[7 [(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

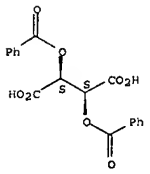
CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

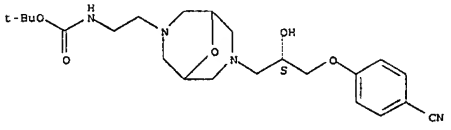


RN 472961-37-8 CAPLUS
CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, (2S,3S)-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

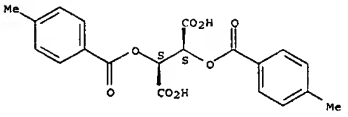
Absolute stereochemistry.



CM 2

CRN 32634-68-7
CMF C20 H18 O8

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:814144 CAPLUS
DOCUMENT NUMBER: 137:316093
TITLE: Modified-release formulations for 3,7-diazabicyclo antiarrhythmic compounds
INVENTOR(S): Carlsson, Hans; Larsson, Anette
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 122 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083687	A1	20021024	WO 2002-SE724	20020412
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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CA 2443464	A1	20021024	CA 2002-2443464	20020412
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HU 200303481	A2	20040128	HU 2003-3481	20020412
EE 200300506	A	20040216	EE 2003 506	20020412
EP 1389211	A1	20040218	EP 2002-733010	20020412
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BR 2002008830	A	20040309	BR 2002-8830	20020412
CN 1514838	A	20040721	CN 2002-811634	20020412
JP 2004525969	T	20040826	JP 2002-581442	20020412
NZ 528559	A	20050324	NZ 2002-528559	20020412
IN 2003MN00906	A	20051021	IN 2003-MN906	20030924
ZA 2003007757	A	20050103	ZA 2003-7757	20031003
BG 108235	A	20050430	BG 2003-108235	20031006
NO 2003004528	A	20031208	NO 2003-4528	20031009
MX 2003PA09213	A	20040129	MX 2003-PA9213	20031009
US 2004132798	A1	20040708	US 2003-474591	20031010
PRIORITY APPLN. INFO.:			SE 2001-1325	A 20010412
			SE 2001-1326	A 20010412
			WO 2002-SE724	W 20020412

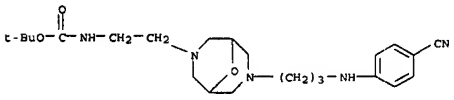
AB A modified release oral pharmaceutical composition is provided comprising an active ingredient, i.e., 4-([3-[7-(3,3-dimethyl 2-oxobutyl) 9-oxa-3,7-diazabicyclo-[3.3.1]non-3-yl]propyl] amino)benzonitrile (Compound A), tert-Bu 2-[7-[3-(4-cyano-anilino)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-

L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

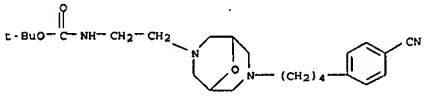
3-yl]ethylcarbamate, tert-Bu 2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate, or tert-Bu 2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate, or a pharmaceutically acceptable salt, such as a benzenesulfonate or toluenesulfonate salt, embedded in a polymer matrix. The compns. are useful in the prophylaxis and/or treatment of cardiac arrhythmias. For example, sustained-release tablets were prepd. by compression of a polymer (hydroxyethyl cellulose or polyoxyethylene) dry mixed with the antiarrhythmic compd. Compd. A (free base or benzenesulfonate salt) in a wt. ratio of 1:1. Tablets had a diam. of 10 mm and wt. of about 250 mg. The hydroxyethyl cellulose tablets were coated with a 10% hydroxypropyl Me cellulose soln.

IT 335619-16-4P 335619-17-5P 335619-18-6P
472961-25-4P 472961-26-5P 472961-27-6P
472961-28-7P 472961-29-8P 472961-31-2P
472961-32-3P 472961-37-8P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(modified-release formulations for antiarrhythmic diazabicyclo compds. based on polymeric matrixes)

RN 335619-16-4 CAPLUS
CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



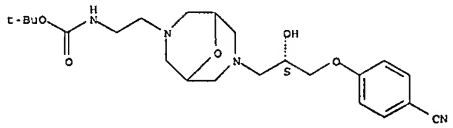
RN 335619-17-5 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335619-18-6 CAPLUS
CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.

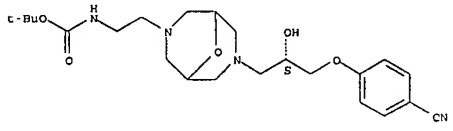


RN 472961-25-4 CAPLUS
CN Carbamic acid, [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 75-75-2
CMF C H4 O3 S

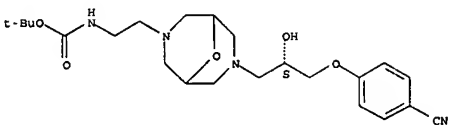
RN 472961-26-5 CAPLUS
CN Glycine, N-benzoyl-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

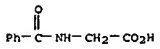
L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.



CM 2

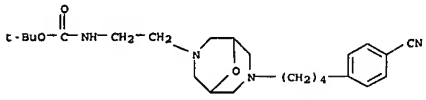
CRN 495-69-2
CMF C9 H9 N O3



RN 472961-27-6 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 335619-17-5
CMF C24 H36 N4 O3



CM 2

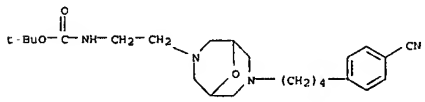
CRN 75-75-2
CMF C H4 O3 S

L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 472961-28-7 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, mono(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-17-5
CMF C24 H36 N4 O3



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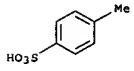
CRN 104-15-4
CMF C7 H8 O3 S



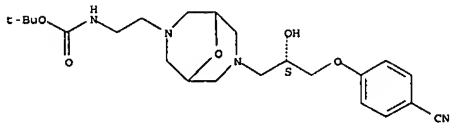
RN 472961-29-8 CAPLUS
CN Glycine, N-([1,1'-biphenyl]-4-ylcarbonyl)-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.

L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

CRN 75446-59-2
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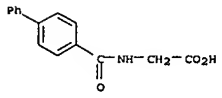
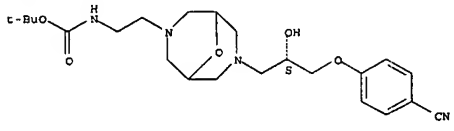


RN 472961-31-2 CAPLUS
CN Glycine, N-(3,4-dichlorobenzoyl)-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



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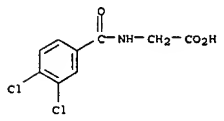
L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

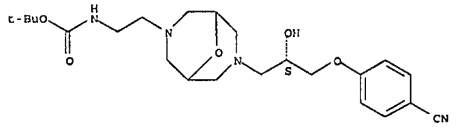


RN 472961-32-3 CAPLUS
CN Glycine, N-(2-naphthalenylcarbonyl)-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



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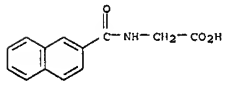


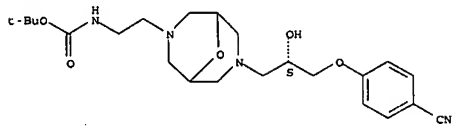
RN 472961-37-8 CAPLUS
CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, (2S,3S)-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

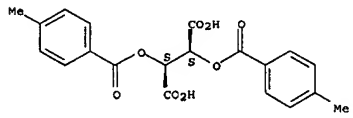
Absolute stereochemistry.



CM 2

CRN 32634-68-7
CMF C20 H18 O8

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:300673 CAPLUS
DOCUMENT NUMBER: 134:326548
TITLE: Preparation of 9-oxa-3,7-diazabicyclo[3.3.1]nonanes as antiarrhythmic agents
INVENTOR(S): Bjoere, Annika; Bjoersne, Magnus; Cladingboel, David; Hoffman, Kurt-juergen; Pavey, John; Ponten, Fritiof; Strandlund, Gert; Svensson, Peder; Thomson, Colin; Wilstermann, Michael
PATENT ASSIGNEE(S): Astrazeneca Ab, Swed.; et al.
SOURCE: PCT Int. Appl., 159 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001028992	A2	20010426	WO 2000-SE1994	20001013
WO 2001028992	A3	20010913		
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EP 1235831	A2	20020904	EP 2000-971960	20001013
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EE 4854	B1	20070615		
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AT 292134	T	20050415	AT 2000-971960	20001013
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US 6559143	B1	20030506	US 2000-688251	20001016

L4 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CN 1468245	A	20011001	CN 2001-816722	20011001
CA 2421776	A1	20020411	CA 2001-2421776	20011001
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L4 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

US 2005171100	A1	20050804	US 2005-89325	20050325
US 2006166979	A1	20060727	US 2006-385833	20060322
US 2006166980	A1	20060727	US 2006-385861	20060322
JP 2006342182	A	20061221	JP 2006-226089	20060823
US 2007117799	A1	20070524	US 2006-640417	20061218

PRIORITY APPLN. INFO.:

SE 1999-3759	A	19991018
PH 2000-1200002701	A	20001002
EP 2000-971960	A3	20001013
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WO 2000-SE1994	W	20001013
US 2000-688251	A3	20001016
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WO 2001-SE2129	W	20011001
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US 2006-385861	B1	20060322

OTHER SOURCE(S): MARPAT 134:326548
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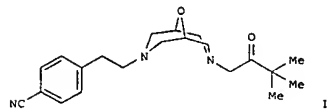


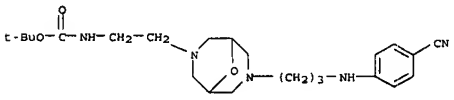
I

AB R1R1Z2CR2R3Z3R4 [R1 = (un)substituted alkyl; R2 = H, halo, alkyl, alkoxy, etc.; R3 = H or alkyl, R2R3 = O; R4 = (un)substituted Ph or pyridyl; Z1 = (alkyl-substituted) 9-oxa-3,7-diazabicyclo[3.3.1]nonane-3,7-diyl; Z2 = bond, alkylene(oxy), alkyleneimino, etc.; groups cited for Z2, alkylenethio, etc.] were prepared as antiarrhythmic agents (no data). Thus, 2,6-diiodomethyl-4-phenylsulfonylmorpholine (preparation given) was cyclocondensed with PhCH2NH2 and the product converted in 4 steps to tert-Bu 9-oxa-3,7-diazabicyclo[3.3.1]nonane-3-carboxylate which was N-alkylated by ClCH2COCMe3 and the deprotected product N-alkylated by 4-(NC)C6H4CH2CH2OSO2Me (preparation given) to give title compound I.

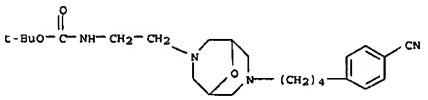
IT 335619-16-4P 335619-17-5P 335619-18-6P
335619-20-0P 335620-25-2P 335620-57-0P
335620-86-5P 335620-91-2P 335620-92-3P

L4 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
335620-93-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 9-oxa-3,7-diazabicyclo[3.3.1]nonanes as antiarrhythmic agents)

RN 335619-16-4 CAPLUS
CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

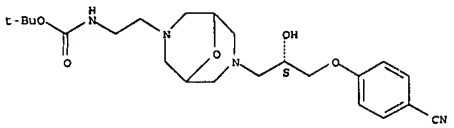


RN 335619-17-5 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

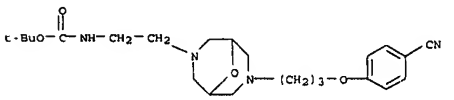


RN 335619-18-6 CAPLUS
CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

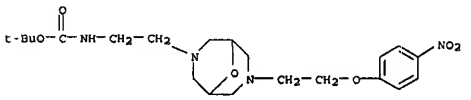
Absolute stereochemistry.



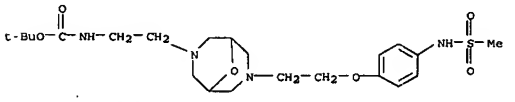
L4 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



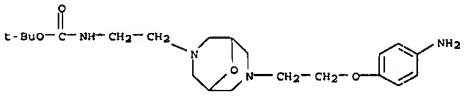
RN 335620-91-2 CAPLUS
CN Carbamic acid, [2-[7-[2-(4-nitrophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-92-3 CAPLUS
CN Carbamic acid, [2-[7-[2-[4-[(methylsulfonyl)amino]phenoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

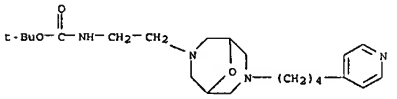


RN 335620-93-4 CAPLUS
CN Carbamic acid, [2-[7-[2-(4-aminophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

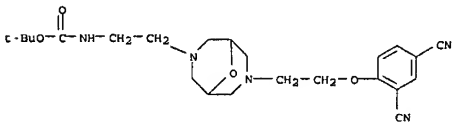


L4 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

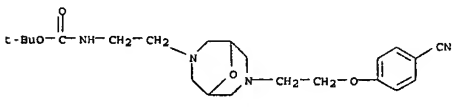
RN 335619-20-0 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-pyridinyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-25-2 CAPLUS
CN Carbamic acid, [2-[7-[2-(2,4-dicyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-57-0 CAPLUS
CN Carbamic acid, [2-[7-[2-(4-cyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-86-5 CAPLUS
CN Carbamic acid, [2-[7-[3-(4-cyanophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)